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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,955	02/03/2006	Bruce Towe	05-1027-US	1066

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EXAMINER

MANUEL, GEORGE C

ART UNIT	PAPER NUMBER
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3762

MAIL DATE	DELIVERY MODE
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10/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/524,955

Applicant(s)

TOWE ET AL.

Examiner

George Manuel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19-21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-21 and 23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-7, 11-17 and 19-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Keilman et al (US 6,231,516).

Keilman et al disclose transducer elements disposed along each of the straight lines 176 in FIG. 13 that produce acoustic waves downwardly. Electrodes comprising each element of the conformal transducer arrays 174A and 174B are photolithographically generated on the piezoelectric plastic substrate comprising the band 172. Leads that extend from an implantable electronic circuit are used to drive the conformal transducer arrays 174A and 174B. Any of the implantable electronic circuits shown in FIGS. 1 through 6 may be used for the implantable electronic circuits.

Regarding claim 4, Keilman et al teach each component that must be provided with a limited DC voltage supply may include a voltage limiting component, such as a zener diode.

Regarding claim 5, Keilman et al teach the piezoelectric material forming the transducer 280 may comprise a PZT-4 material for the feature of providing high electroacoustic coupling and low acoustic losses.

Regarding claim 6, Keilman et al teach the piezoelectric material forming the transducer 280 may comprise piezoelectric plastic materials such as PVDF.

Regarding claims 14-16, the device disclosed in Keilman et al is capable of stimulating the pudental nerve.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keilman et al (US 6,231,516).

Regarding claims 8-10, Keilman et al teach, when ultrasonic signals are being transmitted by one of the selected transducers 44-46, the TX switch 48 couples the RF excitation signal received by the RF coupling coil 30 to the transducer 44-46 that is transmitting the ultrasonic signal, which is selected by the TX MUX 50. One of ordinary skill in the art would have found it obvious to combine this teaching with the required

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hardware of a pulse generator and drive and RF amplifiers to drive respective piezoelectric chips with different resonant frequencies to effectively generate the ultrasonic signals.

Regarding claim 23, one of ordinary skill in the art would have found it obvious to implant the device disclosed in Keilman et al proximate the pudental nerve because the device is adapted to be implanted anywhere in the body.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Manuel whose telephone number is (571) 272-4952.

/George Manuel/
George Manuel
Primary Examiner
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